

Independent Study based on the Strategy of Online Workshops to Develop Professional Abilities (TDHP) of UNITEC

Abstract: The present study reports an analysis of a procedure to develop online workshops for undergraduate students. Furthermore a methodology to generate specific interaction between the participants and a previously prepared content, as well as specific student-tutor, student-student interactions that favor adequate attitudes towards online education is proposed. The result conclusively show that the strategy accomplished a fluid and effective learning experience for the participants with regards to the workshop's contents. Additionally, the workshop promotes a favorable interaction between all members of the online community. Of special importance is the fact that students developed a life long attitude of continuing self-education. We conclude that the proposed methodology for the online workshops effectively complements educational processes for undergraduate students in Mexico and that it is an excellent tool to enable continuous education.

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Introduction

The INITE (Instituto de Investigación de Tecnología Educativa de la Universidad Tecnológica de México) has developed during the past years an educational program called Talleres de Desarrollo de Habilidades Profesionales (Development of Professional Abilities Workshops) aimed at undergraduate students. Some of the topics presented at the workshops include: Business Consulting, Interpersonal Relations, and Self-Education, among others. This last workshop has been defined as a workshop that reinforces the educational process in the college years and creates a motivation to continue this process through life. For three years, our experience with the workshops has been enriching and satisfactory. The results have been constantly monitored and evaluated and a progressive improvement has been carried out with the workshop activities and the student and tutor manuals. The communication with the participants has been both vigorous and constants, resulting in a steady stream of suggestions that helps us mature the workshop format, the time frames related to the different activities schedule and even some interesting suggestions related to the flexibility of the educational model used in the workshop.

Using these suggestions combined with our continuous research, and as a first step to explore the uses of Internet in UNITEC we decided to create a program that initially was thought of as complementary to the existing workshops. This program became the online format of the THDP being taught at campus. From the nine workshops that already existed on campus, we selected the Self-ed workshop and developed an online version. We took into consideration the following elements to support our decision:

1. The contents generate a significant learning environment that is highly motivational and self directed to "...fomenting the self-educating process directed to the forging of autonomous abilities and attitudes to achieve the optimal academic and professional performance (Autoeducación, 2000)." This said environment could be favored by an independent dynamic studying experience. One that promotes autonomy, self-regulation, collaboration, team work and, according to certain authors a studying model that more seems to favor the life long process of education: online off campus education (Abués and Tarín, 2000).
2. Another argument, supported by certain authors (Aretio, 1996; Duarte, 200), is that last course students have possibly developed a better discipline, self-regulatory strategies and the necessary self-motivation to successfully participate in an independent training program than those students from the early studying cycles.
3. The Self-Education workshop is studied by ninth (last) quatrimester students. One of the mayor concerns regarding the online workshops had to do with the students' possibility of accessing the web. We discovered that last quatrimester students had a better chance of having both the adequate hardware and internet access due to the fact that most of the student population at UNITEC work and so have the hardware and internet access at their workplace and/or the economic means to afford one for home use. This increased the expectancy of studying and online workshop.
4. Finally the fact that most last quatrimester students are working was considered. Therefore an online workshop would have a huge appeal due to the fact that they could do the work from their own work places, and/or their home during their spare time.

Methodology of the Online Workshops

To speak of online education is evermore frequent. However, when an institution of higher education is analyzing the possibilities and implications of participating with this model, several issues have to be considered. Among the most important are:

- The type, amount and quality of technology that has to be incorporated into such programs.
- The processes of instruction of the faculty members and the selection of which faculty member should be incorporated.
- The different stages in which the technology and instruction of the faculty members should coincide to develop the educational program. The different stages into which technology is going to be incorporated.
- The institutional changes than this process bring on: First the impact on the faculty, the student body, the research bodies, the administrative staff. Secondly, the different regulatory, proceedings processes that have to be implemented.

Methodology

Based on this outlook, the strategy we outline, concentrated on the development of a methodology for online workshops that seek to establish itself as a complementary modality to the workshops taught at campus and to become the starting point to introduce new strategies and forms to the teaching-learning model.

Online Workshops Strategy

The THDP en Línea (Online Development of Professional Abilities Workshops) was defined as an asynchronous environment. This means that the Tutor-student, student-student, student-tutor is not simultaneous but parallel and/or syncopated. It is achieved by means of email and electronic forums that become debate centers on web pages. This facilitates the reading-learning process associated with the specific needs of the student at a particular time. Simultaneously, each student has the possibility, based on his/her access frames, progression rhythm and interests, to review the contents of the online forum and to participate when she/he considers pertinent. The student has to provide an online activity that is also compulsory and that must be concluded with a written participation and/or essay in a forum. A certain complexity is inevitable regarding the student interaction in sending the information and revising existing and future participations of the other members of the community. If a virtual community of 60 students has to develop (x) number of activities and as a final activity, each student has to write an essay with his/her point of view and recommendations for the workshop which is then submitted so that the rest of the members of the community can revise it, the complexity and amplitude of this process is so much more time consuming, enriching and formal than the same exercise in a classroom in a traditional sense, in which the opinions are often more punctual and less structured. An online community that promotes constant written production, we believe, favors the involvement of all members of the community and facilitates the interaction.

Activities that follow the **reading-opinion-reading-final essay** strategy, characteristically used in the first internet related experiences have proven their value generating and developing the online educational process. However the strategy no longer responds to the current virtual students and/or the potential in the new generation of web pages in which dynamic menus, interactive data bases and streaming multimedia have tap new limits of educational processes. A new strategy that combines the mentioned elements is more in the way of **reading-interaction with concepts-opinion-interaction with other members of the web community-reading-closing activity**. In this strategy, the reading can be a multi-platform, dynamic sequence of events that includes video, audio, reviewing and/or creating concept maps, crossword puzzles, and many more diverse didactic activities available on the web. This is the new strategy that defines the characteristics of the methodology in our online workshops.

Methodology

We developed the workshop on a LINUX platform, using as a primary tool for the student-student, tutor-student Hypernews ver.2.0. We also generated a system that would automatically register the student interactions (RAP-registro de alumnos participantes) using Posgress and PERL. This registry system links what our students are doing in Hypernews and tags an ID to the delivered assignments. Through this method, we have an accurate automatic report of the homework or papers the student is completing, facilitating the tutorial process and allows the tutor to

concentrate on a quality interaction with the students. The tutors received special training sessions to gather in depth knowledge of the process and an online manual is also available to the students.

Javascript and Flash movies and in some cases digital video (.mov Quicktime) to generate the interaction through concept maps, crossword puzzles, etc.. Most activities were drawn directly from the student's manual and then enriched with activities and contents from the tutor's manual. However, some activities were modified for the online modality based on two arguments: the activity could be modified favorably by online interaction through the addition of visual resources, data processing, immediate responses or the activity suggested by the workshop was too complex to be taken literally to the online process. The tools required were structured taking into consideration FACS, videos, two types of forums (exercises and essay), RAPs, interactive exercises and links to the web. (<http://www.eva.com/Autoeduc/herramientas.htm>)

The use of asynchronous forums was defined as the central axis so that each student could present his/her work and could receive feedback by the tutor and/or other students regarding his/her work. The primary task of the tutor was to review the topics discussed in the forums and to provide at least one participation to guide the discussion. A reading of the first and last essay submitted by each student should also be read by the tutor and a personalized message sent to that student with specific comments regarding his/her work.

The online workshop consists of 4 modules, each with two forums, one containing exercises and a second forum for essays as a final practice. In total, each student should incorporate into his/her portfolio 17 papers: 4 short essays, as a conclusion for each of the 4 modules, and 13 obligatory exercises stating opinions on the forum for activities regarding the work done in each module. There are 5 other optional exercises. The workshop lasts two weeks in which no specific time frame is considered. The students can log on at any time and carry out any number of exercises depending on their time limitations, as long as they follow general considerations (<http://www.eva.com.mx/Autoeduc/Recomendaciones.htm>). To ensure this, the access system would not allow the passwords to open the workshop after a certain date.

Participants

The workshop was carried out with UNITEC students, structured around two groups, each one with its own tutor and its own time frame. A total of 92 participated out of which 19.5% belonged to the morning schedule, 54.3% to the evening schedule and 25% to the night schedule. 50% were female and 50% were male. 32% were students only, while 68% reported having a job besides their school activity. Most of the workshop population (64%) were majoring in Accounting, Law or Business Administration. Out of the remaining percentile, 36% were Economics, Marketing, Computing Administration, Finance and a variety of engineers (Chemistry, Electronics, Mechanical, Computer Systems).

Results

After a two week period, 84 students successfully completed the workshop, while 8 failed to do so. 41% of the students handed in 100% of the required work, 48.9% handed in between 9 and 12 exercises and only the 10.1% handed in less than 9 exercises. Regarding the essays, 73% of the students delivered 100% of the work required, 15% between 1 and 3 essays and 12% did not hand in any.

Regarding the tutelage done, several types of interaction were found to be developing:

Student-student: participants oriented themselves.

Date: Feb. 21, 2002. 11:14

Author: Isis Marlene Canto Flores *mcantof*

Do you think that the next generations will adopt this Self-education strategy?

1. Answer: Silvia Atescanco Pineda, Feb24, 16:23
 1. Marlene for Mariela Ramírez Uribe, Feb. 26, 11:15
 2. I agree Bladimir Peñafiel Campaña, Feb. 26, 18:31
 3. Answer: Juan Carlos San Miguel Ayala, Mar 01, 23:34

Student-Tutor: The student requests help from the tutor by e-mail.

Date: Feb. 19, 09:53

Author: Luis Rubén Espejel Parra *reparra*

“I study about a half hour every day and that has been enough for me, because I read what we do in class and even though it is very little (reading), I have certain practice already so it works for me and it allows me to know how much I need to (really) study.”

Forum: Module 1 – Topic 1

RE: Activity 1 (Luis Rubén Espejel Parra)

Date: Feb. 19, 10:19

Author: Tutor Frida Guerrero *fridagro*

“I think that in your particular case, studying is a habit which is very good and gives your learning continuity and when an exam approaches, you only have to review the acquired knowledge, facilitating your learning ability. Congratulations!”

Tutor-Group: The tutor sends group messages through the forums and by e-mail to provide information or to provide a single answer to a discussion line.

Question/Answers

Date: Mar. 08, 16:42

Author: Tutor Jaime Huerta *huerta*

“I would like to make public my appreciation regarding the participation, especially since it is so productive regarding the good quality of your contributions. (I) would like to exhort those of you that have not participated in the group discussions to do so as quickly as possible.

Regarding the questions and answers (I would like to say)..that the elements are directed mostly the professional need for constant self-education and training. This will give you the edge in an ever increasing competitive world.”

Finally, we used a Likert type instrument to retrieve the students’ opinions and we found that: 92% considered the feedback quick, 95% considered it more clear than confusing and 61% considered it to be very broad. 90% considered the exercises to be varied and broad. The tutor’s response time was considered as quick by 89%. The forums were cataloged as user friendly (96%), useful (94%) and broad (95%). The essay forums were considered broad (95%) and user-friendly (97%).

Conclusion

The interaction between the students’ and the self guided contents of the online workshop proved to be an adequate strategy to develop a self –education process. The high turn-in rate of the exercises and the high participation in the forums, indicates that the students could follow the planned sequence: reading-interaction with concepts -opinion-interaction with other members of the web community-reading-closing activity favorably. We can state that the exercises with specific, self interacting content allowed a focused activity, generated a process of opinion regarding the contents and finally developed a working space between peers and student tutor relations. At the same time, the high number of hand-ins regarding the final essays for each module show that the activity is an excellent option to comment on the learning experience for each module. This learning strategy, along with the contents of the online workshop and the asynchronous workspace shows the advantages of the tutoring process, thus guiding the student to an appropriation process of the knowledge from the online source. The social interaction accomplishes a significant role by focusing the learning-teaching experience in tutoring where the students’ peers and the tutor serve as a guide more than a teacher.

Finally those that answered the pole, support our idea that the aforementioned work strategy does promote a favorable attitude towards a self-education processes mediated by computer hardware and software. Additionally it does generate easy to regulate, process and participate in a virtual community of self-education activities. Some aspects that need to be improved include automatic processes that feedback information to allow students to move at their own pace with a more efficient use of their resources (time, higher levels of participation in forums), the definition of evaluation processes that can truly measure the academic reach of the online workshops and a punctual follow up of the tutoring process.